



Product Change Notification / LIAL-10HDQI000

Date:

10-Jun-2022

Product Category:

8-bit Microcontrollers

PCN Type:

Manufacturing Change

Notification Subject:

CCB 3104.005 Final Notice: Qualification of MPHL as a new final test site for selected ATMEGA48xx, ATMEGA88xx and ATMEGA168xx device families available in 32L TQFP (7x7x1mm) package.

Affected CPNs:

[LIAL-10HDQI000_Affected_CPN_06102022.pdf](#)

[LIAL-10HDQI000_Affected_CPN_06102022.csv](#)

Notification Text:

PCN Status:Final Notification

PCN Type:Manufacturing Change

Microchip Parts Affected:Please open one of the files found in the Affected CPNs section.

Note: For your convenience Microchip includes identical files in two formats (.pdf and .xls)

Description of Change:Qualification of MPHL as a new final test site for selected ATMEGA48xx, ATMEGA88xx and ATMEGA168xx device families available in 32L TQFP (7x7x1mm) package.

Pre and Post Change Summary:

	Pre Change	Post Change
Final Test Site	Amkor Technology Philippine (P1/P2), INC.	Microchip Technology Operations Corporation

Qual Report Availability								X								
Final PCN Issue Date								X								
Estimated Implementation Date														X		

Method to Identify Change:Traceability code

Qualification Report:Please open the attachments included with this PCN labeled as PCN_#_Qual_Report.

Revision History:March 21, 2022: Issued initial notification.

June 10, 2022: Issued final notification. Attached the qualification report. Provided estimated first ship date to be on July 18, 2022.

The change described in this PCN does not alter Microchip's current regulatory compliance regarding the material content of the applicable products.

Attachments:

[PCN_LIAL-10HDQI000_Pre and Post Change Summary.pdf](#)

[PCN_LIAL-10HDQI000_Qual Report.pdf](#)

Please contact your local [Microchip sales office](#) with questions or concerns regarding this notification.

Terms and Conditions:

If you wish to receive Microchip PCNs via email please register for our PCN email service at our [PCN home page](#) select register then fill in the required fields. You will find instructions about registering for Microchips PCN email service in the [PCN FAQ](#) section.

If you wish to change your PCN profile, including opt out, please go to the [PCN home page](#) select login and sign into your myMicrochip account. Select a profile option from the left navigation bar and make the applicable selections.



MICROCHIP

QUALIFICATION REPORT SUMMARY

PCN #: LIAL-10HDQI000

Date

June 2, 2022

**Qualification of MPHL as a new final test site for selected
ATMEGA48xx, ATMEGA88xx and ATMEGA168xx device families
available in 32L TQFP (7x7x1mm) package.**

Purpose: Qualification of MPHL as a new final test site for selected ATMEGA48xx, ATMEGA88xx and ATMEGA168xx device families available in 32L TQFP (7x7x1mm) package.

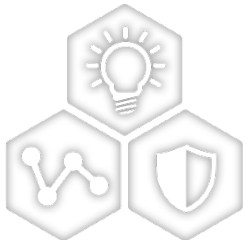
CCB No.: 3104.005

Test / Evaluation	Test Conditions / Parameters	RESULT
Datalog/Bin Comparison	<ul style="list-style-type: none">• Compare test numbers, test names, test sequence bin assignments & pass/fail results• Accept if all match or justify the differences	PASS
Site by Site verification	<ul style="list-style-type: none">• Verifies the channel map has the correct site assignments and tester/handler communications work correctly	PASS
Correlation lot report	<ul style="list-style-type: none">• Yield at each step and reject analysis between systems. 3K units are tested as lot correlation• Accept on yield match within 0.1%	PASS
Test stability	<ul style="list-style-type: none">• 50 loop test performed with no datalog delays• Accept on 0 fails	PASS
Parametric test stability verification	<ul style="list-style-type: none">• Use Real Time Statistics software to create CPK report of all parametric tests• Accept on Cpk > 1.67 or explainable	PASS

CCB 3104.005
Pre and Post Change Summary
PCN#: LIAL-10HDQI000



A Leading Provider of Smart, Connected and Secure Embedded Control Solutions



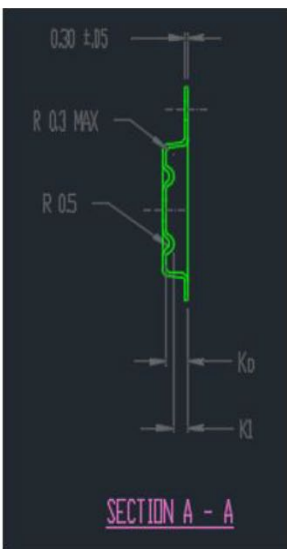
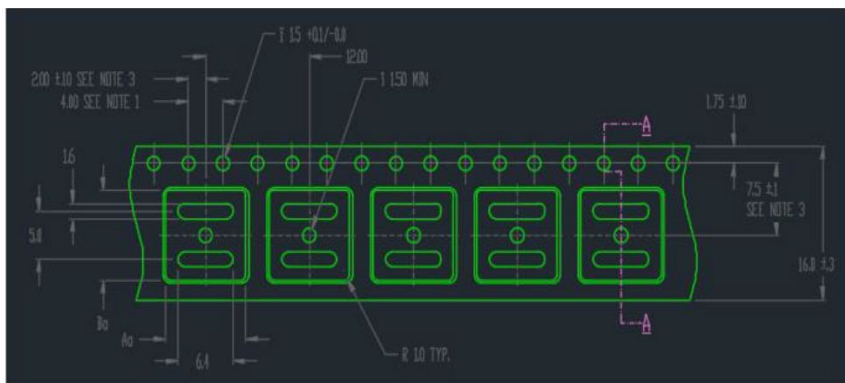
SMART | CONNECTED | SECURE

Tape and Reel - BQM and Pin 1 Orientation

	ANAP	MPHL
Base Quantity Multiple (BQM)	2000	2000
Pin 1 orientation	Quadrant 1	Quadrant 1

Tape and Reel - Carrier Tape

ANAP

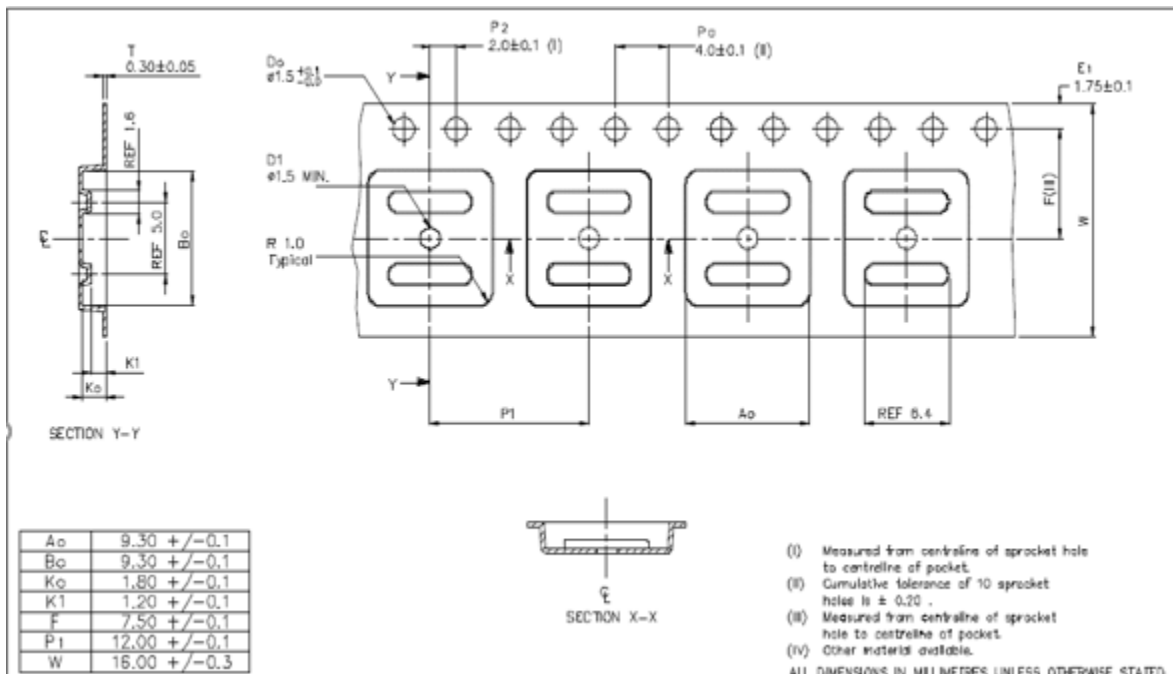


NOTES:
 1. 10 SPROCKET HOLE PITCH CUMULATIVE TOLERANCE ±0.2
 2. CAMBER IN COMPLIANCE WITH EIA 481
 3. POCKET POSITION RELATIVE TO SPROCKET HOLE MEASURED AS TRUE POSITION OF POCKET, NOT POCKET HOLE

W	P	Ao	Bo	Ko	K1
16.00 (+/- 0.30)	12.00 (+/- 0.10)	9.30 (+/- 0.10)	9.30 (+/- 0.10)	1.80 (+/- 0.10)	1.20 (+/- 0.10)

Thickness	Color
0.30 (+/- 0.05)	Black

MPHL



W: 16 mm
 P1: 12 mm
 A0: 9.30 mm
 B0: 9.30 mm
 K0: 1.80 mm
 K1: 1.20 mm

Tape and Reel – Plastic Reel

ANAP



Width	Outer Diameter	Inner Diameter
16	330.2 (+/- 2.0)	100

Color: White

MPHL



Color: White

D: 13"

Hub: 4"

W1: 17.5 mm

W2: 21.5 mm

Tape and Reel – Packaging

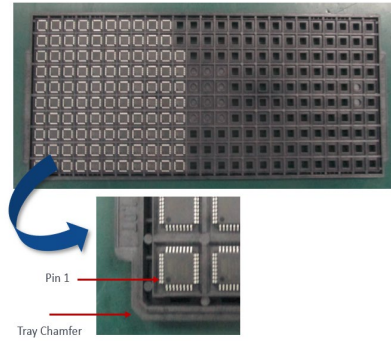
Final Test Site	ANAP	MPHL
Desiccant	 A white, rectangular desiccant packet labeled 'Sorb Clay'. The text on the packet includes 'DO NOT EAT', 'AMELCO DESICCANTS, INC.', 'www.amelco.com', and 'PHILIPPINE DESICCANTS, INC.'. It also features a barcode and a warning symbol.	 A white, rectangular desiccant packet labeled 'SOLUPAK'. The text on the packet includes 'DO NOT EAT', 'PHILIPPINE DESICCANTS, INC.', 'www.philippine-desiccants.com', and 'TEL: 053-887-0714'. It also features a barcode and a warning symbol.
Antistatic Bag	 A white, rectangular antistatic bag with a small label in the center. The bag is made of a shiny, reflective material.	 A white, rectangular antistatic bag with a small label in the center. The bag is made of a shiny, reflective material.
Boxes	 A cardboard box with the Microchip logo and 'DO NOT DROP' warning in English, Chinese, and Thai. The box is white with a blue background.	 A cardboard box with 'STATIC SENSITIVE' and 'DO NOT DROP' warnings in English, Chinese, and Thai. The box is white with a blue background. The dimensions '37.0 x 38.0 x 11.0 CM.' are printed on the box.

Tray - BQM and Pin 1 Orientation

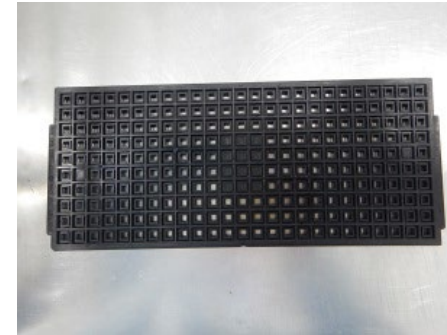
	ANAP	MPHL
Base Quantity Multiple (BQM)	250	250
Pin 1 orientation	Pin1 near Tray Chamfer	Pin1 near Tray Chamfer

Tray

ANAP



MPHL



Tray – Packaging

Final Test Site	ANAP	MPHL
Desiccant		
Antistatic Bag		
Boxes		